What is claimed is:

1. An optical device, comprising:

a first optical transmitter emitting a first optical signal having a first wavelength;

a second optical transmitter emitting a second optical signal having a second wavelength different than said first wavelength, said second wavelength being variable among a plurality of wavelengths;

an optical combining element configured to combine said first and second optical signals onto a common optical communication path;

an optical filtering element coupled to said optical communication path, said optical filtering element having an associated transmission spectrum having a plurality of transmission peaks, each of which corresponding to a respective one of said plurality of wavelengths; and

a receiver circuit coupled to said optical filtering element, said receiver circuit being configured to sense said second optical signal.

2. An optical device in accordance with claim 1, wherein said optical filtering element includes a Fabry-Perot etalon.

3. An optical device in accordance with claim 1, wherein said optical combining element includes an optical coupler.

4. An optical device in accordance with claim 1, wherein said optical combining element includes an optical filter.

5. An optical device in accordance with claim 1, wherein said plurality of peaks are periodically spaced within said transmission spectrum.

6. An optical device in accordance with claim 1, wherein said optical filtering element is a first optical filtering element, said optical device further comprising a second optical filtering element coupled to said second optical transmitter and said optical combining element, said second optical filtering element having an associated transmission spectrum substantially the same as said transmission spectrum associated with said first optical filtering element.

7. An optical device in accordance with claim 6, wherein said second optical filtering element includes a Fabry-Perot etalon.

8. An optical device in accordance with claim 1, wherein said combining element is a first combining element, and said plurality of wavelengths is a first plurality of wavelengths, said optical device further comprising:

a plurality of transmitters, each of which emitting a corresponding one of a plurality of optical signals, each of said plurality of optical signals having a corresponding one of a second plurality of wavelengths, said first transmitter being included in said plurality of transmitters and said first optical signal being included in said plurality of optical signals;

a second combining element having a plurality of inputs, each of which being configured to receive a respective one of said plurality of optical signals, and an output configured to supply said plurality of optical signals onto said optical communication path; and

an optical demultiplexer coupled to said optical communication path, said optical demultiplexer having an input configured to receive said plurality of optical signals, and a

plurality of outputs, each of which being configured to output a respective one of said plurality of optical signals.

9. An optical device in accordance with claim 8, wherein each of said second plurality of wavelengths conforms to a channel plan, each of said first plurality of wavelengths being between adjacent ones of said second plurality of wavelengths in said channel plan.

10. An optical device in accordance with claim 1, further comprising a plurality of optical amplifiers coupled along said optical communication path.

11. An optical device in accordance with claim 10, wherein each of said optical amplifiers includes an erbium doped fiber amplifier.

12. An optical device in accordance with claim 1, wherein said second transmitter includes an external modulator.

13. An optical device in accordance with claim 12, wherein said plurality of wavelengths is a first plurality of wavelengths, said optical device further comprising a plurality of transmitters, each of which emitting a corresponding one of a plurality of optical signals, each of said plurality of optical signals having a corresponding one of a second plurality of wavelengths, said first transmitter being included in said plurality of transmitters and said first optical signal being included in said plurality of optical signals, said external modulator being configured to be modulated at a frequency substantially equal to a magnitude of a spectral spacing between adjacent ones of said second plurality of wavelengths.

14. An optical device in accordance with claim 1, further comprising a forward error correction encoder circuit coupled to said second transmitter, and a forward error correction decoder coupled to said receiver circuit.

15. An optical device in accordance with claim 1, wherein a modulation format associated with said second optical signal is optical CDMA.

16. An optical device in accordance with claim 1, wherein said filtering element is a first filtering element, said optical device further comprising:

a second filtering element coupled to said first filtering element, said second filtering element has a first output configured to supply said second optical signal when said second optical signal having a first one of said plurality of wavelengths, and a second output configured to supply said second optical signal when said second optical signal having a second one of said plurality of wavelengths different than said first one.

17. An optical device in accordance with claim 16, wherein said second optical signal includes a plurality of pulses, each at a respective one of said plurality of wavelengths, further comprising:

a first detector coupled to said first output of said second filtering element, said first detector generating a first sense signal in response to said second optical signal having said first one of said plurality of wavelengths;

a second detector coupled to said second output of said second filtering element, said second detector generating a second sense signal in response to said second optical signal having said second one of said plurality of wavelengths different than said first one; and

a counter circuit coupled to said first and second detectors, said counter circuit initiating a count of said plurality of pulses in response to said first sense signal, and assigning a respective one of said plurality of wavelengths to each count.

18. An optical device in accordance with claim 16, wherein said second filtering element includes a fiber Bragg grating.

19. An optical device, comprising:

a first optical transmitter emitting a first optical signal having a first wavelength;

a second optical transmitter emitting a second optical signal having a second wavelength different than said first wavelength, said second wavelength being variable among a plurality of wavelengths;

an optical combining element configured to combine said first and second optical signals onto a common optical communication path; and

an optical filtering element coupled to said optical communication path, said optical filtering element having an associated transmission spectrum having a plurality of transmission peaks, each of which corresponding to a respective one of said plurality of wavelengths.

20. An optical device in accordance with claim 19, wherein said optical filtering element is coupled to said optical combining element and said second optical transmitter.

21. An optical device in accordance with claim 19, wherein a modulation frequency associated with said second optical signal is greater than an optical frequency associated with said first optical signal, said optical device further comprising:

a detector coupled to said optical communication path; and

a low pass filter coupled to said detector.